What is Claimed:

1. An energy storage device product, comprising:
a mix of recyclable carbon and binder particles.
2. The product of claim 1, wherein at least some of the mix is dry fibrillized.
3. The product of claim 1, wherein the mix consists of no processing additive.

4. An energy storage device product, comprising:
a film, the film including
a mix of particles, wherein at least some of the particles are recycled particles.
5. The product of claim 4, wherein the particles are fibrillized.
6. The product of claim 5, wherein the recycled particles are fibrillized.
7. The product of claim 4, wherein the film is a self-supporting film.
8. The product of claim 7, wherein the film comprises a thickness of less than 250 microns
9. The product of claim 4, wherein the film comprises a length of at least 1 meter.
10. The product of claim 4, wherein the film is coupled directly against a substrate.
11. The product of claim 10, wherein the film comprises substantially no processing additive.

12.The product of claim 10, wherein the substrate comprises a collector.

13. The product of claim 4, wherein the product comprises a collector, and wherein the film is coupled directly against a surface of the collector.

14.The product of claim 13, wherein the collector comprises two sides, wherein one film is calendered directly against one side of the collector, and wherein a second film is calendered directly against a second side of the collector.

15.The product of claim 14, wherein the collector is treated.

16.The product of claim 14, wherein the collector is formed to comprise a roll.

17.The product of claim 16, wherein the roll is disposed within a sealed aluminum housing.

18.The product of claim 4, wherein at least some of the particles comprise fibrillizable flouropolymer and carbon particles.

19.The product of claim 18, wherein the carbon particles comprise activated carbon particles and conductive particles.

20.The product of claim 19, wherein at least some of the particles comprise thermoplastic particles.

21. An energy storage product, comprising:

a dry mix of recyclable dry binder and dry carbon particles, the particles formed into a continuous self-supporting electrode film without the substantial use of any processing additives.

22. The product of claim 21, wherein the processing additives include hydrocarbons, high boiling point solvents, antifoaming agents, surfactants, dispersion aids, water, pyrrolidone, mineral spirits, ketones, naphtha, acetates, alcohols, glycols, toluene, xylene, and/or Isopars[tm].

23. The product of claim 21, wherein at least some of the dry binder comprises a dry fibrillized binder.

24. The product of claim 23, wherein the binder is fibrillized by a high-pressure gas.

25. The product of claim 24, wherein the high-pressure comprises a pressure of more than 60 PSI.

26. The product of claim 25, wherein the gas comprises a water content of less than about 20 PPM.

27. A method of making an energy storage device electrode, the method comprising the steps of:
forming a first electrode film from a plurality of particles;
and reusing one or more of the plurality of particles to form a second film.

28. The method of claim 27, wherein the plurality of particles are dry fibrillized.

29. The method of claim 27, further comprising a step of coupling a first side of the second film to a collector.

30. The method of claim 28, wherein the step of reusing comprises the step of fibrillizing the particles after the particles are used to make the first electrode film.

31. The method of claim 30, wherein the binder comprises a flouropolymer.

32. The method of claim 31, wherein the carbon particles comprise conductive carbon particles.

33. The method of claim 30, wherein the first film is self-supporting.

34. The method of claim 33, wherein the particles comprise conductive carbon particles and activated carbon particles.

35. The method of claim 29, wherein the films are heated dry films.

36. The method of claim 27, wherein the second film comprises a density of about .50 to .70 gm/cm^2.

37. The method of claim 30, wherein the first film comprises between about 80% to 95% activated carbon, between about 0% to 15% conductive carbon, and between about 3% to 15% fibrillizable fluoropolymer.

38. The method of claim 36, wherein the first film further comprises a thermoplastic.

39. A capacitor, comprising;

a plurality of dry processed particles, the dry processed particles including recycled binder and conductive particles.

40. The capacitor of claim 39, wherein at least some of the dry processed particles are formed as a self-supporting dry electrode film.

41. The capacitor of claim 39, further comprising a current collector, wherein the dry processed particles are bonded to the current collector, and wherein the current collector comprises aluminum.

42. The capacitor of claim 39, further comprising a separator, wherein the dry processed particles are bonded to the separator.

43. The capacitor of claim 42, wherein the separator comprises paper.

44. The capacitor of claim 39, wherein the capacitor is rated to operate at a maximum voltage of 3.0 volts or less.

45. The capacitor of claim 40, wherein the dry electrode film comprises a density of about .50 to .70 gm/cm^2.

46. The capacitor of claim 39, wherein the dry processed particles are compacted into a dry self-supporting electrode film by a single pass compaction device.

47. The capacitor of claim 39, further comprising a sealed aluminum housing, wherein the dry processed particles are disposed within the housing.

48. The capacitor of claim 41, further comprising a sealed aluminum housing, wherein the current collector is coupled to the housing by a laser weld.

49. The capacitor of claim 48, wherein the capacitor comprises a jellyroll type electrode.

50. A capacitor, the capacitor comprising:
a plurality of reusable particles;
a collector; the collector having two sides; and
two electrode film layers, the two electrode film layers comprised of the reusable particles, wherein a first electrode film layer is bonded directly onto a first surface of the collector, and wherein a second electrode film layer is bonded directly onto a second surface of the collector.

51.The capacitor of claim 50, wherein the two electrode film layers comprise no processing additives.

52.The capacitor of claim 51, wherein the two electrode layers comprise dry fibrillized particles.

53.The capacitor of claim 50, wherein the film layers comprise substantially zero residues as determined by a chemical analysis of the layers before impregnation by an electrolyte.

54. An energy storage device, comprising:
one or more continuous self supporting intermixed film structure comprised of reused carbon binder particles, the film structure consisting of about zero parts per million processing additive.

55.The energy storage device of claim 54, wherein the additive is selected from the group consisting of hydrocarbons, high boiling point solvents, antifoaming agents, surfactants, dispersion aids, water, pyrrolidone, mineral spirits, ketones, naphtha, acetates, alcohols, glycols, toluene, xylene, and Isopars$^{tm.}$

56.The energy storage device of claim 54, wherein the intermixed film structure is an electrode film.

57.The energy storage device of claim 55, wherein the film structure is an energy storage device electrode film.

58.The energy storage device of claim 57, wherein the electrode film comprises a capacitor electrode film.

59.An energy storage device, comprising:

a housing;

a collector, the collector having an exposed surface;

an electrolyte, the electrolyte disposed within the housing; and

an electrode film, the electrode film comprised of recycled particles, wherein the electrode film is impregnated with the electrolyte, and wherein the electrode film is coupled directly to the exposed surface.

60.The device of claim 59, wherein the electrode film is substantially insoluble in the electrolyte.

61.The device of claim 60, wherein the electrode comprises a binder, wherein the binder is substantially insoluble in the electrolyte.

62.The device of claim 61, wherein the binder comprises a thermoplastic, and wherein the thermoplastic couples the electrode film to the collector.

63.The device of claim 60, wherein the electrolyte is an acetonitrile type of electrolyte.

64. An energy storage device structure, comprising:

one or more recyclable electrode film, wherein the one or more recyclable electrode film is both conductive and adhesive, and wherein the one or more recyclable electrode film is coupled directly to a current collector.

65. An energy storage device structure, comprising:

one or more self-supporting recyclable dry process based electrode film.

66. The structure of claim 65, wherein the film comprises conductive and adhesive particles.

67. The structure of claim 66, wherein the adhesive particles comprise a thermoplastic.

68. The structure of claim 67, wherein the electrode is a capacitor electrode.

69. An electrode, comprising:

a collector; and

a dry process based electrode film, wherein the electrode film is coupled to the collector, wherein the electrode film comprises recycled conductive particles and binder particles.

70. The electrode of claim 69, wherein between the collector and the electrode film there exists only one distinct interface.

71. The electrode structure of claim 69, wherein the binder particles comprise a thermoplastic.

72.The electrode of claim 69, wherein the conductive particles comprise conductive carbon.

73.The electrode of claim 71, wherein the electrode film further comprises activated carbon.

74.The electrode of claim 69, wherein the conductive particles comprise a metal.

75.An energy storage device structure, comprising:
a plurality of recyclable dry processed carbon and binder particles formed as an electrode, wherein as compared to an electrode formed of a plurality of substantially similar carbon and binder particles processed with a processing additive, the intermixed dry processed carbon and binder particles comprises less residue.

76. A capacitor, comprising
a continuous compacted self supporting recyclable dry electrode film comprised of a dry mix of dry binder and dry carbon particles, the film coupled to a collector, the collector shaped into a roll disposed within a sealed aluminum housing.

77. The capacitor of claim 76, wherein the recyclable dry electrode film comprises substantially no processing additive.

78. An energy storage device, comprising:
dry process recyclable electrode means for providing electrode functionality in an energy storage device.